

PAPERS READ.

NOTES FROM THE AUSTRALIAN MUSEUM.

**ON SPECIMENS OF THE GENUS *XIPHASIA*,
SWAINSON, FROM PORT JACKSON.**

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The Australian Museum has recently received no less than three specimens of this rare fish, the first on April 7th through the Inspector of the New South Wales Fisheries, the second during the first week in May from Mr. Arthur Weigall, and the third on the 22nd of the current month: the last specimen, having been evidently disgorged by some other fish, was consequently worthless.

The genus *Xiphasia* was established by Swainson in 1839 for the reception of a fish described and figured by Russell under the name of "Tonkah Talawaree," the latter author having placed it in the genus *Ophidium*. In Swainson's system it was first placed next to *Ophidium*, but was subsequently removed to the neighbourhood of *Cepola*, with which latter family it has no affinities whatever. In 1858 Dr. Kaup described under the name of *Nemophis lessoni* two specimens obtained by MM. Lesson and Garnot during the Voyage of the Coquille, and therefore in all probability from the South Seas. Jerdon in 1851 obtained two examples, and from these a drawing was made by Sir W. Elliott, which is reproduced by Dr. Day, (*Fishes of India*, pl. 73), and is, with the exception of the elongate caudal ray, an accurate representation of our fish. Subsequently Dr. Günther in his catalogue formed the genus *Xiphogadus* for the reception of Russell's fish, though well aware that Swainson's genus was established on the same data: he however had taken previously a step in the right direction by placing *Nemophis* (Kaup) among the *Blenniidae*.

Following up this clue Dr. Bleeker in 1863 proved conclusively from the examination of a specimen contained in the Leyden Museum, that the subject of this memoir is a Blennioid fish, or, as Dr. Day says "in fact a *Petroscirtes* with a tænioid or eel-like body;" the remarkable form of the dentition, and the size and position of the gill-openings are conclusive proofs of the correctness of this view. To the Zool. Rec. of 1868 Dr. Günther supplies a note, in which he recognises the identity of *Nemophis* with *Xiphasia*, or *Xiphogadus* as he prefers to call it, and appears to have come to the conclusion that there is probably but one species. If, however, Playfair's description (P.Z.S. 1868, p. 11) be correct, there are certain differences between his fish and ours, which would be sufficient to establish the specific rank of his example.

In view of the meagre descriptions of this curious form which are available to us, we have thought it advisable to give a full description of our fish taken from the recent examples above mentioned.

XIPHASIA SETIFER.

Ophidium tonkah-talawaree, Russell, Fish. Vizag. I., p. 28, pl. xxxix.

Xiphasia setifer, Swainson, Fishes, in Lardner's Cyclopædia II., pp. 179, 259, (1839); Day, Fishes of India, p. 336, pl. LXXIII., f. 1, (1878).

Xiphichthys russellii, Jerdon, M. J. L. & Sc., p. 139, (1851).

Xiphogadus setifer, Günth., Cat. iv., p. 374, (1862).

(?) *Nemophis lessoni*, Kaup, P. Z. S. 1858, p. 168; Günth., Cat. III., p. 296.

(?) *Xiphogadus madagascariensis*, Playf., P. Z. S. 1868, p. 11.

B. vi.; D. 128, 129; A. 116, 115; V. 3; P. 13; C. 12.

Length of head 16 in the total length; height of head $\frac{3}{7}$ to $\frac{2}{3}$ of its length; caudal fin about $\frac{1}{2}$ of the same. Orbit $3\frac{7}{10}$ in the length of head, equal to that of snout, and from $\frac{1}{2}$ to $\frac{3}{7}$ of a

diameter apart. The upper profile of the head is rounded, and the upper jaw is slightly the longer when the mouth is closed. The mandible is armed with a single row of closely set recurved cardiform teeth with a greatly developed lateral canine on each side which fits into a groove in the roof of the mouth; the teeth are similar in size and number to those of the mandible, with the exception of the lateral canine, which is barely $\frac{1}{3}$ of the size of that of the lower jaw. The dorsal fin commences above the anterior margin, and does not quite reach to the root of the caudal, though its posterior rays extend more than half its length, but are nowhere joined to it. The anal commences beneath the seventeenth dorsal ray, and extends to the root of the caudal fin, but is not joined to it by membrane; the rays of both fins are simple throughout their entire length. The other fins are but little developed. *Colors*, alternately dark and light ash, the dark bands being twice the width of the light, and being most defined at the margins. All the fins opaline, the dorsal with a black margin narrowly edged with white; the black margin however broadens out into distinct blotches on the anterior half of the fin.

We have received a fine example of *Gastrotokus biaculeatus*, Bl., hitherto only recorded from North Australia, from Mr. C. S. Jarrett, who obtained it at Ballina, Richmond River; this species is hitherto unrecorded from N. S. Wales.